

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
15 April 2004 (15.04.2004)

PCT

(10) International Publication Number  
**WO 2004/032036 A1**

(51) International Patent Classification<sup>7</sup>: **G06K 13/08**,  
H01R 13/64

**TOMITA, Mitsuhiro** [JP/JP]; 6-5-719 Nishi-tsuruma,  
3-chome, Yamato-shi, Kanagawa 242-0005 (JP).

(21) International Application Number:  
PCT/US2003/030528

(74) Agent: **CALDWELL, Stacey, E.**; Molex Incorporated,  
2222 Wellington Court, Lisle, IL 60532 (US).

(22) International Filing Date:  
26 September 2003 (26.09.2003)

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
290654/2002 3 October 2002 (03.10.2002) JP

(71) Applicant (*for all designated States except US*): **MOLEX INCORPORATED** [US/US]; 2222 Wellington Court, Lisle, IL 60532 (US).

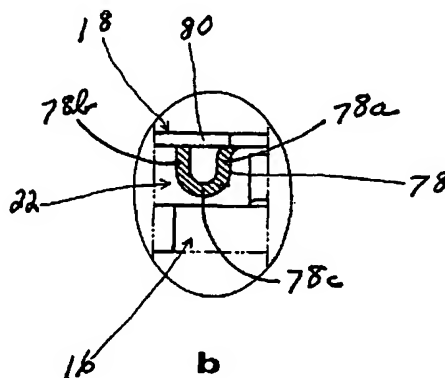
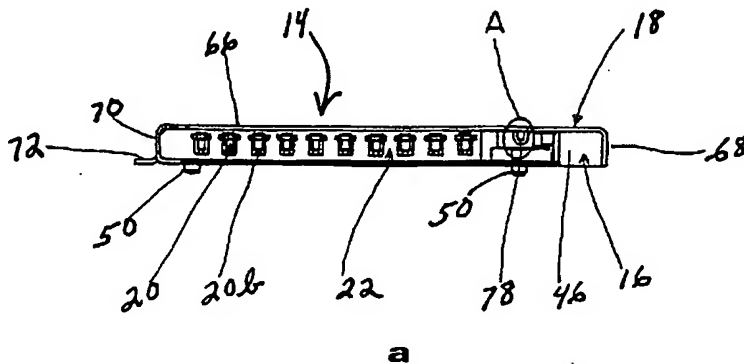
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **MATSUMOTO, Yasuyoshi** [JP/JP]; Heights-Ichikawa-Daisan #305, 12-19 Chuo, 6-Chome, Yamato-shi, Kanagawa 242-0021 (JP).

[Continued on next page]

(54) Title: MEMORY CARD CONNECTOR WITH MEANS FOR PREVENTING ERRONEOUS CARD INSERTION



(57) **Abstract:** A memory card connector (14) includes an insulating housing (16) defining a front receptacle area communicating with an interior cavity (22) for receiving a memory card. A plurality of terminals (20) are mounted on the housing in a side-by-side array transversely across a rear of the housing. The terminals (20) have contact portions (20b) at a rear of the cavity for engaging contacts on a top side of the memory card. A sheet metal shell (18) covers at least a portion of the insulating housing (16) and includes a cover plate overlying at least a portion of the cavity. The shell (18) has a wrong insertion-proof projection (78) formed out of the cover plate and extending downwardly into the cavity and into a slot in the top of the memory card when the card is properly inserted into the cavity. The projection prevents an erroneously inserted memory card from engaging the contact portions of the terminals. The projection (78) is bent into an elbow-shaped cross-sectional configuration to prevent scarring or cracking of the memory card when erroneously inserted into the cavity.